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	Application No.	Applicant(s)	
Notice of Allowability	10/783,480	JIANG ET AL.	
	Examiner	Art Unit	
	Tuan N. Nguyen	2828	
The MAILING DATE of this communication apperature All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT R of the Office or upon petition by the applicant. See 37 CFR 1.313 1. This communication is responsive to 02/19/2004.  2. The allowed claim(s) is/are 1-27.	ears on the cover sheet w (OR REMAINS) CLOSED in or other appropriate communication is	ith the correspondence address in this application. If not included nunication will be mailed in due cou	rse. <b>THIS</b>
<u> </u>		(6)	
<ul> <li>3.</li></ul>			
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).  6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.			
<ul> <li>Attachment(s)</li> <li>1. ☑ Notice of References Cited (PTO-892)</li> <li>2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)</li> <li>3. ☑ Information Disclosure Statements (PTO-1449 or PTO/SB/C Paper No./Mail Date 02/19/2004</li> <li>4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material</li> </ul>	6. ☐ Interview S Paper No 08), 7. ☐ Examiner's	nformal Patent Application (PTO-15 Summary (PTO-413), ./Mail Date s Amendment/Comment s Statement of Reasons for Allowar 	

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REASON FOR ALLOWANCE

Allowable Subject Matter

1. The following is an examiner's statement of reasons for allowance, with respect to claims

1, 15, 20 the references of the record fail to teach or suggest a fiber laser comprising:

Claim 1:

A gain fiber less than 5cm having pump source having a narrowband with a linewidth

less than 100kHz and broadband grating as an optical resonant cavity at the opposite ends of the

fiber producing a mode spacing comparable with the narrowband grating's linewidth and lase at

a single longitudinal mode and output a single frequency between 1.8um-2.1um, where the

cladding made up same as the core glass host, where the core made up of germinate/tellurite/ or

fluoride having 0.5-15 weight percent of thulium/or holmium oxide.

Claim 15:

A gain fiber less than 5cm having pump source outputs a single-frequency signal with

center wavelength approximately 2um, having the cladding made up fluoride/germante/or

tellurite glass host, where a single mode core made glass host having 0.5-15 weight percent of

thulium/or holmium oxide, where a narrowband grating fused at one end of the gain passive fiber

and a broadband grating fused at the other end of the passive gain fiber.

Claim 20:

A gain fiber less than 5cm having pump source lase the dopant oxide ions fiber at a single

longitudinal and outputs a single-frequency signal with center wavelength approximately 2um,

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having a core formed of an oxide-based multi-component glass host 30-85% from GeO<sub>2</sub>/or TeO<sub>2</sub>, having a glass intermediator L<sub>2</sub>O<sub>3</sub> of 0.5-50% from Al<sub>2</sub>O<sub>3</sub>, B<sub>2</sub>O<sub>3</sub>, Y<sub>2</sub>O<sub>3</sub>, La<sub>2</sub>O<sub>3</sub>, WO<sub>3</sub> and mixture thereof, having a glass modifier of 2-50% including MO of 0-20% from BaO, BeO, MgO, SrO, CaO, ZnO, PbO, K2O, Li2O, and R2O of 0-20% from Na2O, Li2O and K2O and mixture thereof, where glass host having 0.5-15 weight percent of thulium/or holmium oxide.

2. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

## Communication Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan N Nguyen whose telephone number is (571) 272-1948. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harvey Minsun can be reached on (571) 272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tuan N. Nguyer

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